--7. (Amended) A method of manufacturing a semiconductor device comprising:

forming concentration source/drain layers of the reverse conductive type in a semiconductor layer of one conductive type;

forming a gate electrode formed on a channel layer located between the source and drain layers;

forming a body layer of one conductive type formed adjacent to the source layer and a low concentration drain layer of the reverse conductive type formed between the channel layer and the drain layer, wherein the body layer is formed only under the gate electrode;

doping impurities of the reverse conductive type into said semiconductor layer to form a low concentration drain layer of the reverse conductive type;

doping impurities of the reverse conductive type into said semiconductor layer to form a high concentration source layer of the reverse conductive type so that the source layer is adjacent to one end of said gate electrode and form a high concentration drain layer of the reverse conductive type in a position apart from the other end of said gate electrode;

doping impurities of one conductive type into said semiconductor layer to form a body layer of one conductive type extended from under one end of said gate electrode and formed so that the body layer is adjacent to said source layer of the reverse conductive type; and

forming a gate electrode on a gate oxide film after the gate oxide film is formed on said semiconductor layer.--

--8. (Amended) A method of manufacturing a semiconductor device according to claim 7, further comprising doping an impurity for forming a reverse conduction type layer by ion implantation.--

9. A method of manufacturing a semiconductor device according to Claim 7, wherein: said low concentration drain layer of the reverse conductive type or said low concentration source/drain layers of the reverse conductive type are

formed so that they are shallow under said gate electrode and they are deep under said high concentration drain layer of the reverse conductive type or said high concentration source/drain layers of the reverse conductive type.

--10. (Amended) A method of manufacturing a semiconductor device, comprising:

doping impurities of the reverse conductive type into a semiconductor layer of one conductive type to form low concentration source/drain layers of the reverse conductive type;

doping impurities of the reverse conductive type into said semiconductor layer and forming a layer of the reverse conductive type which ranges to said source/drain layers of the reverse conductive type and is shallower than said source/drain layers of the reverse conductive type;

doping impurities of the reverse conductive type into said source/drain layers of the reverse conductive type to form high concentration source/drain layers of the reverse conductive type;

doping impurities of one conductive type into said layer of the reverse conductive type to form a body layer of one conductive type; and

forming a gate electrode on a gate oxide film so that the gate electrode covers said body layer of one conductive type after the gate oxide film is formed on said substrate, wherein the body layer is formed only under the gate electrode.--

--11. (Amended) A method of manufacturing a semiconductor device according to Claim 10, further comprising doping an impurity for forming a reverse conduction type layer by ion implantation after forming the body layer.--

--12. (Amended) A method of manufacturing a semiconductor device, comprising:

doping impurities of the reverse conductive type into a semiconductor layer of one conductive type to form a low concentration layer of the reverse conductive type;

doping impurities of the reverse conductive type into said layer of the reverse conductive type to form high concentration source/drain layers of the reverse conductive type;

doping impurities of one conductive type into said layer of the reverse conductive type to form a body layer of one conductive type;

forming a first gate electrode for a first MOS transistor on a gate oxide film after the gate oxide film is formed on said substrate and forming a second gate electrode for a second MOS transistor on said body layer of one conductive type, wherein the body layer is formed only under the gate electrode; and

forming source/drain layers of the reverse conductive type so that they are adjacent to said first gate electrode using a resist film coating an area except are as where source/drain layers for said first MOS transistor are formed as a mask.--

--13. (Amended) A method of manufacturing a semiconductor device according to Claim 12, further comprising doping an impurity for forming a reverse conduction type layer by ion implantation.--

--14. (Amended) A method of manufacturing a semiconductor device, comprising:

doping impurities of the reverse conductive type into a semiconductor layer of one conductive type by ion implantation to form low concentration source/drain layers of the reverse conductive type;

doping impurities of the reverse conductive type into said semiconductor layer by ion implantation to form a layer of the reverse conductive type which ranges to said source/drain layers of the reverse conductive type and is shallower than said source/drain layers of the reverse conductive type;

doping impurities of the reverse conductive type into said source/drain layers of the reverse conductive type by ion implantation to form high concentration source/drain layers of the reverse conductive type;

doping impurities of one conductive type into said layer of the reverse conductive type by ion implantation to form a body layer of one conductive type;

forming a first gate electrode for a first MOS transistor on a gate oxide film after the gate oxide film is formed on said substrate to form a second gate electrode for a

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second MOS transistor on said body layer of one conductive type, wherein the body layer is formed only under the gate electrode; and

forming source/drain layers of the reverse conductive type so that they are adjacent to said first gate electrode using a resist film coating an area except areas where the source/drain layers for said first MOS transistor are formed as a mask.--

--15. (Amended) A method of manufacturing a semiconductor device according to Claim 14, further comprising doping an impurity for forming a reverse conduction type layer by ion implantation.--

--16. (Amended) A method of manufacturing a semiconductor device according to Claim 7, wherein doping impurities of one conductive type into said semiconductor layer to form a body layer comprises doping by ion implantation.--

--17. (Amended) A method of manufacturing a semiconductor device according to Claim 10, wherein doping impurities of one conductive type into said semiconductor layer to form a body layer comprises doping by ion implantation.--

--18. (Amended) A method of manufacturing a semiconductor device according to Claim 12, wherein doping impurities of one conductive type into said semiconductor layer to form a body layer comprises doping by ion implantation.--

--19. (Amended) A method of manufacturing a semiconductor device according to Claim 14, wherein doping impurities of one conductive type into said semiconductor layer to form a body layer comprises doping by ion implantation.--

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20. A method of manufacturing a semiconductor device according to claim 12, wherein:
said first MOS transistor is a micro MOS transistor; and
said second MOS transistor is a MOS transistor having a high resistance to voltage.

21. A method of manufacturing a semiconductor device according to Claim 14, wherein:

said first MOS transistor is a micro MOS transistor; and

said second MOS transistor is a MOS transistor having high resistance to voltage.

--22. (Amended) A method of manufacturing a semiconductor device comprising:

forming source/drain regions of a second conductive type in a semiconductor of a first conductive type;

doping impurities of the first conductive type into the semiconductor of the first conductive type by ion implantation to form a semiconductor layer of the first conductive type comprising a channel located between the source/drain regions; and

doping impurities of the second conductive type into the surface of the semiconductor layer of the first conductive type to form a second conductive type layer.--

--23. (Amended) A method of manufacturing a semiconductor device comprising:

forming low concentration source/drain regions of a second conductive type in a semiconductor of a first conductive type;

forming high concentration source/drain regions of the second conductive type in the low concentration source/drain regions;

doping impurities of the first conductive type into the semiconductor of the first conductive type by ion implantation to form the semiconductor layer of the first conductive type comprising a channel located between the source/drain regions; and

doping impurities of the second conductive type into the surface of the semiconductor layer of the first conductive type to form a second conductive type layer.--

--24. (Amended) A method of manufacturing a semiconductor device comprising:

doping impurities of a second conductive type into a semiconductor of a first conductive type to form low concentration source/drain regions of the second conductive type;

doping impurities of the second conductive type into the semiconductor of the first conductive type to form high concentration source/drain regions of the second

conductive type in the low concentration source/drain regions, wherein the low concentration source/drain regions surround the high concentration source/drain regions;

doping impurities of the first conductive type into the semiconductor of the first conductive type to form a semiconductor layer of the first conductive type constituting a channel located between the source/drain regions of the second conductive type;

doping impurities of the second conductive type into the surface of the semiconductor layer of the first conductive type to form a second conductive type layer; and

forming a gate electrode on a gate oxide film provided on the semiconductor of the first conductive type, wherein the low concentration source/drain regions extends from under the gate electrode.--

25. The method of manufacturing a semiconductor device according to claim 24, wherein the low concentration source/drain regions of the second conductive type are formed to be adjacent to the semiconductor layer of the first conductive type formed below the gate electrode by ion implantation.

26. The method of manufacturing a semiconductor device according to claim 24, wherein the low concentration source/drain regions of the second conductive type is shallowly diffused in the surface of the semiconductor of the first conductive type to be adjacent to the semiconductor layer of the first conductive type formed below the gate electrode by at least ion implantation.

--27. (Amended) A method of manufacturing a semiconductor device comprising:

forming a first transistor having high resistance to voltage and a second transistor having high resistance to voltage both having low concentration source/drain regions of a second conductive type in a semiconductor of a first conductive type;

forming high concentration source/drain regions of the second conductive type in the low concentration source/drain regions and a gate electrode formed on a gate oxide film provided on the semiconductor, wherein the low concentration source/drain regions extend from under the gate electrode, and the low concentration source/drain regions surround the high concentration source/drain regions;

doping impurities of the second conductive type by ion implantation, to form a second conductive type layer continuous with the low source/drain regions of the second transistor having high resistance to voltage; and

doping impurities of the first conductive type to form a body layer of the first conductive type below the gate electrode of the second transistor having high resistance to voltage, wherein the body layer parts the second conductive layer.--

--28. (Amended) A method of manufacturing a semiconductor device comprising:

forming a first transistor having high resistance to and a second transistor having high resistance to voltage;

doping impurities of a second conductive type into a semiconductor of a first conductive type to form first low concentration source/drain regions of the second conductive type for the first transistor and second low concentration source/drain regions of the second conductive type for the second transistor;

doping impurities of the second conductive type into the first and second source/drain regions of the second conductive type to form first high concentration source/drain regions of the second conductive type for the first transistor and second high concentration source/drain regions of the second conductive type for the second transistor;

doping impurities of the second conductive type by using a resist film, as a mask, having an opening in a region for forming the second transistor to form a low concentration second conductive type layer connecting the second low concentration source/drain regions; and

doping impurities of the first conductive type by using a resist film, as a mask, having an opening at a part of the second conductive type layer to form a semiconductor layer of the first conductive type below a gate electrode of the second transistor, wherein the semiconductor layer of the first conductive type parts the low concentration second conductive type layer, and the low concentration source/drain regions extend from under the gate electrode, and the low concentration source/drain regions surround the high concentration source/drain regions.--